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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/849,256 | 05/20/2004 | Masanari Esaki | L8612.04120 | 4312 |

24257 7590 12/11/2006

STEVENS DAVIS MILLER & MOSHER, LLP
1615 L STREET, NW
SUITE 850
WASHINGTON, DC 20036

EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT PAPER NUMBER

2627

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,256

Applicant(s)

ESAKI ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-9, 11-22 and 33 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 10 and 23-32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

Figures 8 and 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

With regard to page 14 (lines 5-10), the phrase "If the average thickness of the case member 18 in the *above described range is 1*, the average thickness of the case member 19 is preferably *from 0.4 to 0.83*. If the value is *less than 0.4*, the mechanical strength of the case member 19 cannot be maintained, and if the value is *more than 0.83*, the gaps ..." (emphasis in

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bold italics added) should be amended to specify what units the bold italicized range encompasses (mm?).

With regard to page 16 (lines 5-7), the phrase “More specifically, when a case member 19 having an average thickness of 0.5 mm *and a case member 19 having an average thickness of 0.4 mm* are mounted to the case member 18 having a thickness of 0.7 mm, a gap is created between (emphasis in bold italics added) seems to be duplicative with respect to the bold-italicized phrase and the preceding phrase.

With regard to page 28 (line 5), the word “ally” should be spelled as the word --alloy--.

With regard to page 30 (line 4 and line 5), the phrase “lower cover 10b” should be changed to the phrase --lower cover 210b-- in order to remain consistent with respect to Figure 21.

Appropriate correction is required.

Claim Objections

Claim 23 is objected to because of the following informalities:

With regard to claim 23 (line 10), the word “planer” should be spelled as the word --planar--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 11 and 16-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 11 (line 4-5), the phrase "the average thickness of the second case member is from 0.4 to 0.83 when the average thickness of the first case member is 1" is vague and ambiguous. Are the reference range numbers measured specifically in units (e.g., mm?), or perhaps are the numbers representative of a ratio?

The following phrase(s) lack clear antecedent basis within the claim(s), i.e., either the particularly recited passage fails to be properly introduced prior to its appearance at that point in the claim or the structure recited in the passage is not an inherent part of or component of the previously recited structure:

(i) Claim 16 (line 9), "the line connection means."

Additionally, since claims 17-22 depend directly or indirectly from claim 16, they too are thus rejected under the second paragraph of 35 U.S.C. § 112.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 7-9, 12-17, 20, 21 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 6,151,285) in view of Tomita et al. (JP 11-186750 A).

As per claim 1, Watanabe et al. (US 6,151,285) discloses an optical disk device, comprising: a case (209, 210), having first (209 or 210) and second (the other of 209 or 210) case members fixed with each other; a driver (229), rotating a medium (D_A); an optical pickup module (205), including optical elements; and a circuit portion (251), forming a control portion; wherein: at least one of the first and second case members (209, 210) has a main surface (e.g., flat horizontal base surface of (210)) and side surfaces (210c, 210d, 210g) provided at ends of the main surface; an integral part is apparently provided at a corner (e.g., see FIG. 21) where a pair of the side surfaces in at least one of the first and second case members adjoin such that the integral part is continuously integrated with the at least one pair of side surfaces (210c, 210g).

As per claim 9, wherein: a tray (202) is movably provided at the first case member (209), the first (209) and second (210) case members are each provided with a main surface (horizontal planar flat surfaces) and side surfaces provided at ends of the main surfaces (case (209) includes thickness side surfaces), the tray (202) is positioned between the main surfaces of the first (209) and second (210) case members, the side surfaces of the first and second case members (209, 210) oppose each other, and one or more first protrusions (e.g., as seen in FIG. 21, the inwardly bent upper side portions of uppermost walls (210c and (210b) that are protruded inwardly) are provided at a part of the side surfaces of the second case member (210) opposing the first case member (209).

As per claim 14, wherein one or more second protrusions (e.g., see in FIG. 20, wherein at the lower corner of (209) a notch is formed, resulting in the lowermost corner of (209) having a protrusion) are provided at a part of the side surface of the first case member opposing the second case member (210) (when coupled).

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As per claim 15, wherein the first and second protrusions are provided shifted from each other so as not to abut against each other (when cover (209) overlies base (210)).

As per claim 16, further comprising: a tray (202), at least carrying a driver (229) and an optical pickup module (205), the tray (202) being capable of protruding and withdrawing through an opening of the case including at least the first and second case members (i.e., at the front of case members (209, 210) where the tray is loaded and unloaded); and a line connector (252), connected to the tray (202), wherein a part of the inner wall of the case opposing at least one of the driver and the line connection means is provided with a recess (e.g., see FIGS. 19 and 21, wherein the lowermost planar flat surface of (210) is “recessed” from flat planar surface (210b)).

As per claim 17, wherein a recess is provided at a part opposing the line connector (252), and at least a part of the line connector is stored in the recess (see FIG. 19).

As per claim 20, wherein a recess (e.g., 209a - see FIG. 34) is provided in a location where the upper end of the driver (including disc turntable) passes when the tray (202) is freely protruded and withdrawn.

As per claim 21, further comprising: a first board (253), fixed to the case; and a second board (251), fixed to the tray (202), wherein the first (253) and second (251) boards are electrically connected by the line connection means (252).

As per claim 33 wherein the first case member (210) includes a main bottom surface (flat lowermost planar surface as seen in FIG. 21), a sub bottom surface (210b) provided substantially parallel to the main bottom surface and having a step (at (210d)) near the second case member (209), a side surface (210d) connecting the main bottom surface (of 210) and the

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sub bottom surface (210b), and a connection part (e.g., sub bottom vertical wall surface) connecting the main bottom surface and the second case member provided at an end of the sub bottom surface, a reinforcement member (217, 218) is provided opposing the main bottom surface and the side surface (210d), and the reinforcement member (217, 218) includes a part adhered by an adhesive to at least one of the main bottom surface and the side surface (so as to not move relative to the sides; such adhesives can include welding, solder, etc.).

Assuming *arguendo*, however, that Watanabe et al. (US 6,151,285) cannot be said to somehow discloses an integral part that is provided at a corner where a pair of the side surfaces in at least one of the first and second case members adjoin such that the integral part is continuously integrated with the at least one pair of side surfaces, such structure is known.

For example, Tomita et al. (JP 11-186750 A) discloses an analogous chassis used in an analogous art of Watanabe et al. (US 6,151,285), wherein an integral part (seamless corners formed by “drawing”) is provided at a corner where a pair of the side surfaces of a chassis of a recording device adjoin such that the integral part is continuously integrated with the at least one pair of side surfaces. See abstract of Tomita et al. (JP 11-186750 A).

As per claim 2, Tomita et al. (JP 11-186750 A) further discloses wherein the integral part is formed by all parts of the corner (21 - see FIG. 1).

As per claim 3, Tomita et al. (JP 11-186750 A) further discloses wherein the corner (21) includes an unconnected part where a pair of side surfaces are not connected (e.g., see FIG. 1, wherein walls (17) and (13) are cut or have portions removed from their top surfaces where corners (21, 23) meet), and are thus “unconnected at the uppermost portions) and an integral part where the pair of side surfaces are integrally connected (at 21, 23).

As per claim 5, Tomita et al. (JP 11-186750 A) further discloses wherein the integral part (lower part at corners 21, 23) and the unconnected part (recessed tops of (17, 13) that do not at the corners) are provided in this order from the main surface side (19).

As per claim 7, Tomita et al. (JP 11-186750 A) further discloses wherein the case member chassis (19) is formed by drawing.

As per claim 8, Tomita et al. (JP 11-186750 A) further discloses wherein the outer surface of the integral part has a C-shape or a curved shape - see FIG. 1.

Tomita et al. (JP 11-186750 A) performs such a corner seamless integration via drawing in order to, *inter alia*, “realize light weight and high bending, twisting rigidity” is high in the chassis of a recording device.

Given the express teachings and motivations, as espoused by Tomita et al. (JP 11-186750 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an integral part (seamless corners formed by “drawing”) at a corner of the base chassis of Watanabe et al. (US 6,151,285), where a pair of the side surfaces of a chassis of a recording device adjoin such that the integral part is continuously integrated with the at least one pair of side surfaces, as espoused by Tomita et al. (JP 11-186750 A).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide an integral part (seamless corners formed by “drawing”) at a corner of the base chassis of Watanabe et al. (US 6,151,285), where a pair of the side surfaces of a chassis of a recording device adjoin such that the integral part is continuously integrated with the at least one pair of side surfaces, as espoused by Tomita et al. (JP 11-186750 A), in order to, *inter alia*, “realize light weight and high bending, twisting rigidity” is high in the chassis of a recording device.

With regard to claim 12, although Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), remains silent as to wherein the first and second case members are made of at least one of iron, an iron alloy, aluminum, an aluminum alloy, and a magnesium alloy, Official notice is taken that chassis's used in recording devices of the type as disclosed by Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), made of material set forth in claim 12, are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

Moreover, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the first and second case members are made of Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), as being at least one of iron, an iron alloy, aluminum, an aluminum alloy, and a magnesium alloy.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the first and second case members are made of Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), as being at least one of iron, an iron alloy, aluminum, an aluminum alloy, and a magnesium alloy in order to provide a rigid, yet lightweight chassis material (e.g., using aluminum) as is well known, established and appreciated in the art.

Additionally, Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), however, remains silent as to the specific relationships set forth in claims 13.

It is known, however, that chassis bases and covers for disk devices in the recording disk device art are routinely modified in the course of routine optimization/ experimentation and

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thereby obtain various standard optimized relationships including those set forth in claim 13, in order to, e.g., provide requisite rigidity to support components, while minimizing unnecessary thickness.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the case members of Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), satisfy the relationships set forth in claim 13.

The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the case members of Watanabe et al. (US 6,151,285), as applied to Tomita et al. (JP 11-186750 A), satisfy the relationships set forth in claim 13 in the course of routine optimization /experimentation and thereby obtain various standard optimized relationships including those set forth in claim 13, including providing requisite rigidity to support disk device components (upper thickness range) components, while minimizing unnecessary thickness to provide an advantageously minimal thickness as possible (thereby arriving at a lower range thickness limit).

Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claim 13 is considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

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Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Allowable Subject Matter

Claims 4, 6, 10 and 23-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18, 19 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

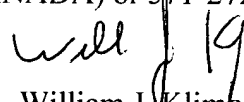
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK